

# Work Order ID 51194

August 6, 2009 2:22:18 PM

Page 1

Item ID: D3789-3

Accept

Revision ID: A

Item Name: Clamp

Setup Start

Stop

Start Date: 8/10/09 Start Qty: 12.00

Required Date: 8/14/09 Req'd Qty: 12.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3789

Rev A

100



Bandsaw

Jeaspa Bandsaw

Memo

Cut extrusion to 1.250"

0.00

0.00

mk 09/08/11

12

8

110



HAAS 1

HAAS CNC vertical machine #1

Memo

Machine as per Folio FA834

Dwg Rev:

Folio Rev:

Debur

0.00

0.00

mk 09/08/12

12

8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 51194

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Item ID: D3789-3

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Setup Start



Revision ID: A

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Item Name: Clamp

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Start Qty: 12.00



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Req'd Qty: 12.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

115

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

aml 09/08/12

12

✓

Quality Control

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

SAO 09/08/12

12

✓

Quality Control

130

Chemical Conversion Coat per QS1005 4.1

0.00



HandFinish

Memo

0.00

09-08-12

12

✓

Hand Finishing

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Page 3

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Start Qty: 12.00

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Req'd Qty: 12.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

140

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

=> 5/2/08/12

(412) 8

150

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

\*\*\*\*\*Mask bearing bore prior to powder coat\*\*\*\*\*

START TIME: 1:00pm  
OVENTEMPERATURE: 320°F  
FINISH TIME: 1:30pm

=> 09.08.12

(412) 24

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

=> 5/2/08/12

(412) 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 4

Item ID: D3789-3

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Revision ID: A

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Item Name: Clamp

Start Date: 8/10/09

Start Qty: 12.00



Cust Item ID:

Required Date: 8/14/09

Req'd Qty: 12.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

170



Small Fab

Small Fab

Memo

0.00

0.00

1- press fit D2611 bearing after powder coat  
2- stake D2611 bearing 4 places each side as per dwg D3789

EP 09/08/13

12

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

=) S 02/08/13

12

4

190



Packaging

Packaging

Identify as per dwg & Stock Location: 467

Memo

0.00

0.00

12

MD 09/08/13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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**NOTE:** Date & initial all entries



# Work Order ID 51194

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Page 5

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Required Date: 8/14/09 Req'd Qty: 12.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

200

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/08/17

ME 09-08-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

August 6, 2009 2:22:18 PM

Page 1

Work Order ID: 51194

Parent Item: D3789-3RevA

Parent Item Name: Clamp



Comments:

Start Date: 8/10/09

Required Date: 8/14/09

Start Qty: 12.00

Required Qty: 12.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2423RevB1		Manufactured	No			170	f	760.9447	0.8842			
												
Lug Extrusion												

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

760.94468

43722

213.01468

44529

22.39

45800

525.54

D2611RevC

Manufactured No

100

Each

37.0000

12.0000



Bearing



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

37

46841

8

50521

29

B51197

(12P)

1.3125" + mR 08/11

8/09/08/13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DART AEROSPACE LTD		Work Order: 57194
Description: CLAMP		Part Number: D3789-3
Inspection Dwg: D3789 Rev: A		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

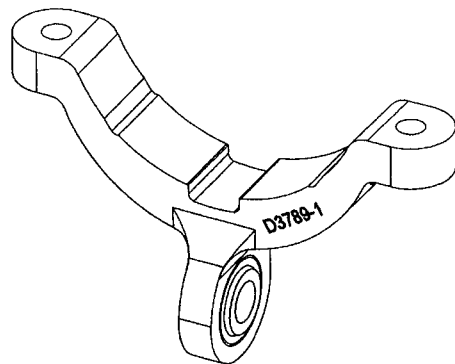
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.20	±.030	4.201	—			
.40	±.030	.391	—			
.40	±.030	.400	—			
R.1.38	±.030	R.1.380	—			
R.06	±.030	R.060	—			
R.25	±.030	R.250	—			
.31	±.030	.315	—			
.75	±.030	.754	—			
3.45	±.030	2.447	—			
Ø.257	±.005 - .000	.258	—			
.38	±.030	.375	—			
R.25	±.030	R.250	—			
2.63	±.030	2.636	—			
2.07	±.030	2.072	—			
Ø.811	±.0005 - .0000	Ø.811	—			
.56	±.030	.558	—			
1.12	±.030	1.125	—			

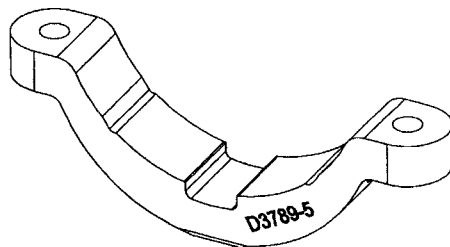
Measured by: <i>amk</i>	Audited by: <i>SA</i>	Prototype Approval: N/A
Date: 09/08/12	Date: 09/08/12	Date: N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

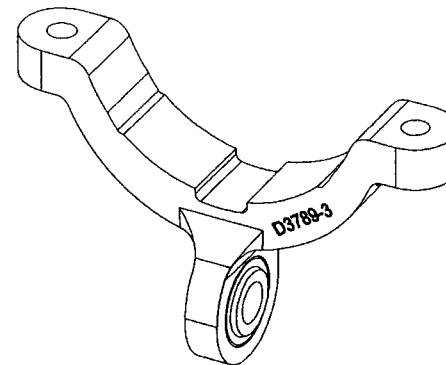
*SA*



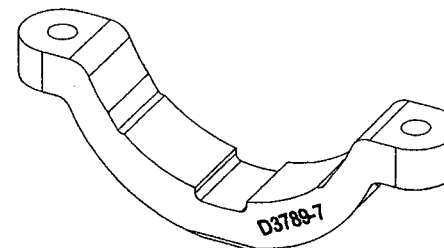
**D3789-1 CLAMP**



**D3789-5 CLAMP**



**D3789-3 CLAMP**



**D3789-7 CLAMP**

*51194*

*51194*

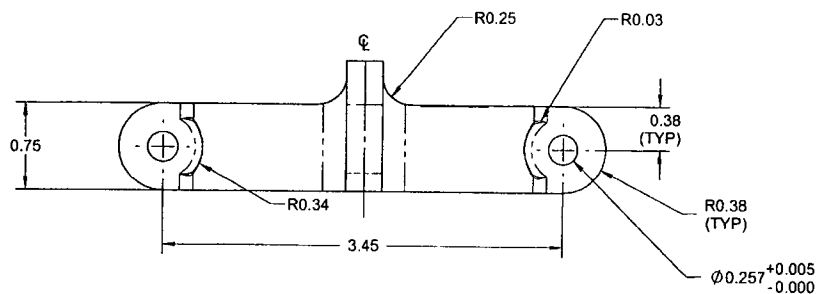
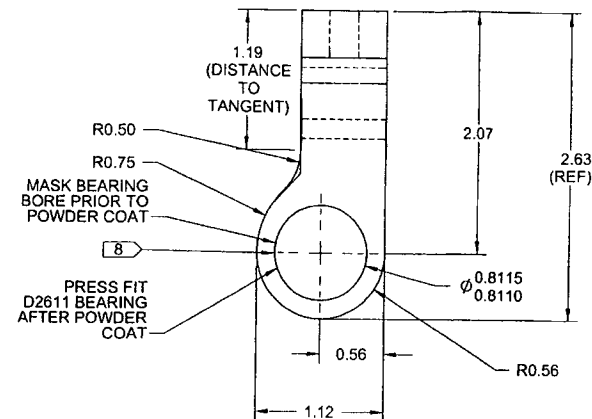
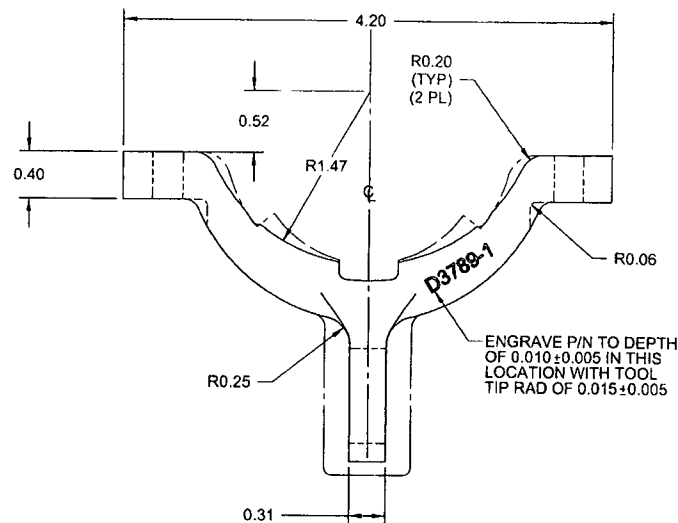
**DEO ATTACHED**

**RELEASED**  
08/12/21

**NOTES:**

- 1) MATERIAL: MANUFACTURE FROM D2423 EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE WITH DART P/N AS SHOWN
- 7) WEIGHT: D3789-1, 0.16 lbs  
D3789-3, 0.16 lbs  
D3789-5, 0.14 lbs  
D3789-7, 0.14 lbs
- 8) STAKE D2611 BEARING 4 PLACES EACH SIDE AFTER POWDER COAT
- 9) PART IS SYMETRICAL ABOUT Q





A NEW ISSUE		HS	08.05.21
REV.	DESCRIPTION		BY DATE
DESIGN	HS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	HS		
CHECKED		DRAWING NO. D3789	REV. A
MFG. APPR.		TITLE	SHEET 1 OF 5
APPROVED		CLAMP	SCALE
DE APPR.			NTS
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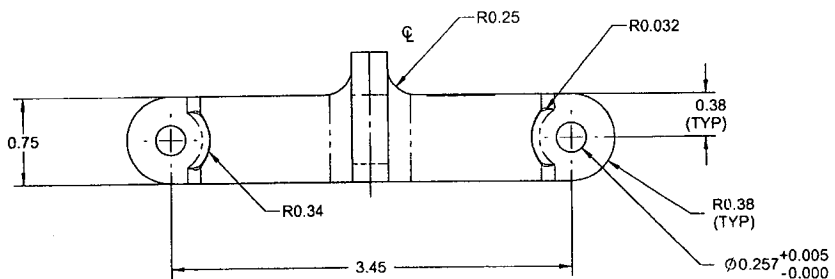
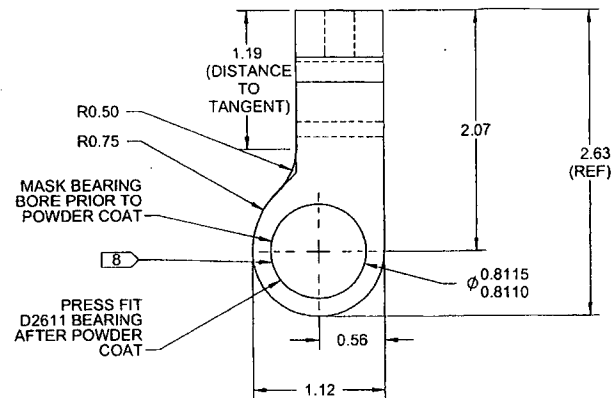
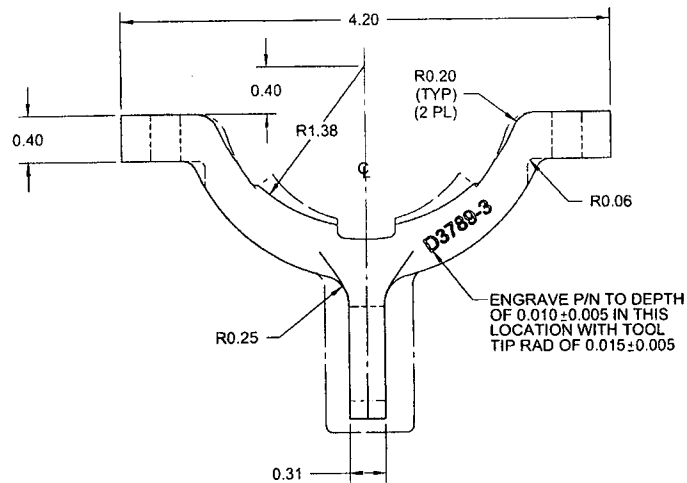


**D3789-1 CLAMP**

DEO ATTACHED

RELEASED  
08/12/21

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DRAWN	HS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3789	SHEET 2 OF 5
APPROVED		TITLE	SCALE
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**D3789-3 CLAMP**

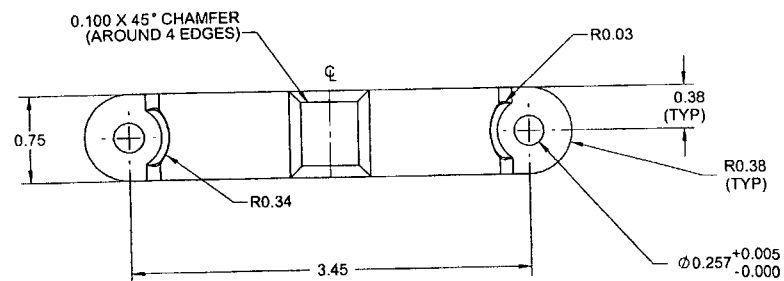
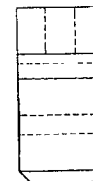
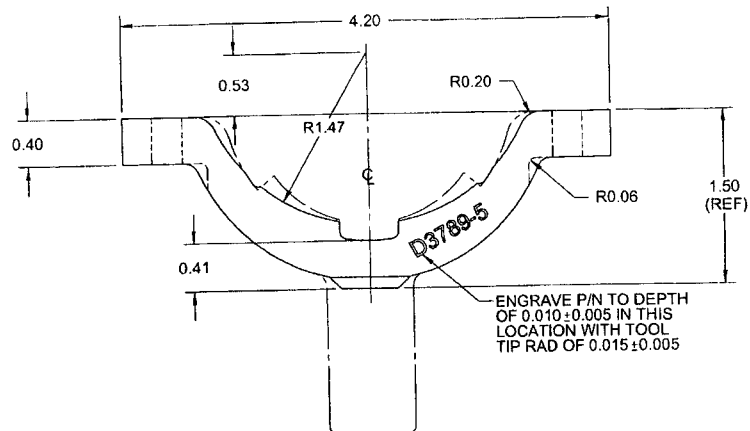
51194

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DRAWN	HS	HAWKESBURY, ONTARIO, CANADA	
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MFG. APPR.		D3789	SHEET 3 OF 5
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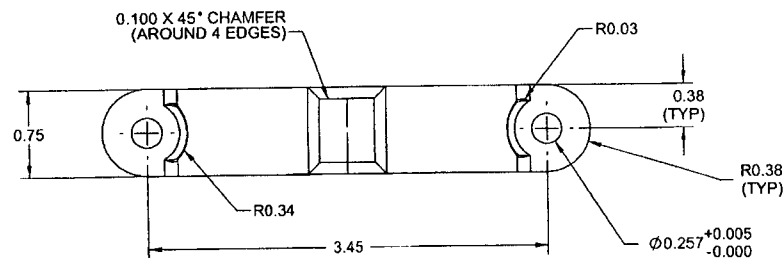
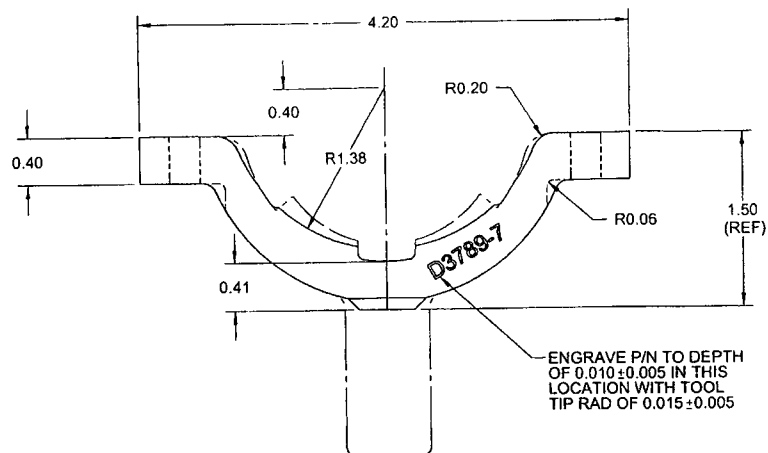


**D3789-5 CLAMP**

51194  
DEO ATTACHED

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08/12/21

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DRAWN	HS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D3789	SHEET 4 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
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**D3789-7 CLAMP**

51194

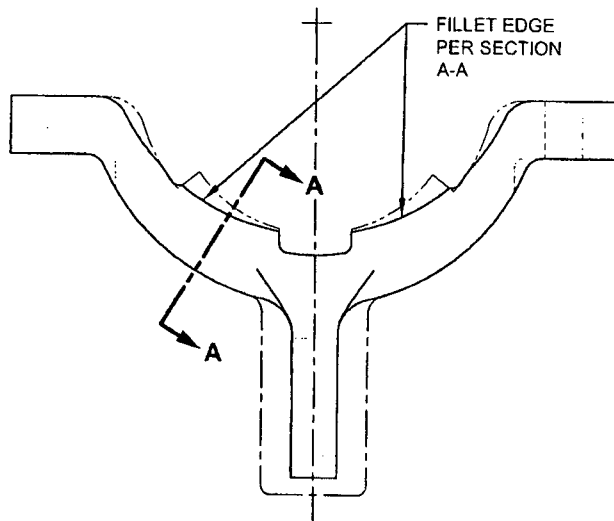
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28/12/21

DESIGN	HS	DART AEROSPACE LTD	
DRAWN	HS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	HS	DRAWING NO.	REV. A
MFG. APPR.		D3789	SHEET 5 OF 5
APPROVED		TITLE	SCALE
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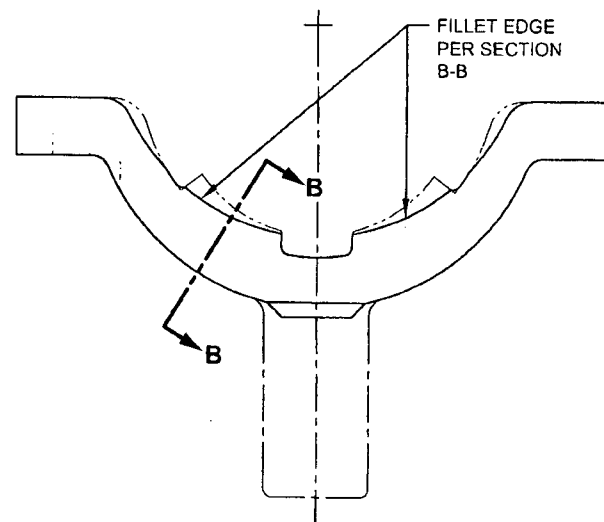
DRAWING NO. D3789	TITLE CLAMP	REV. A	<b>DART AEROSPACE LTD ENGINEERING ORDER</b>		D.E.O. NO. D3789-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>AJS</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>		DE APPR. <i>[Signature]</i>		
DATE 09.04.20	DATE 09.04.23	DATE 09.04.23	DATE 09/04/23		DATE 09/04/23		

ADD FILLETS TO -1/-3/-5/-7 PER SECTIONS A-A AND B-B TO PREVENT CHAFING OF RUBBER CUSHIONS AS SHOWN:



**D3789-1 CLAMP**

**D3789-3 CLAMP**



**D3789-5 CLAMP**

**D3789-7 CLAMP**



R0.06 MIN - R0.10 MAX  
2PL

**SECTION A-A**

SCALE 2X

**SECTION B-B**

SCALE 2X

SEE PAR 122 FOR FURTHER DETAILS

51194  
**RELEASED**  
09/25/24 *[Signature]*

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